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IN THE CLAIMS

Please amend claims 1, 7 and 13 as follows:

1. (CURRENTLY AMENDED) A method for providing contextual diagnostic data at a point of failure of a software program, comprising:

(a) registering one or more callback [[s]] functions for each of one or more modules and sub-applications within the program;

(b) examining a call stack for the program upon failure of the program;

(c) notifying the registered callback [[s]] functions for the modules and sub-applications based on the examined call stack, wherein an error handler gives each module or sub-application that registered a callback function and is on the examined call stack an opportunity to include specific diagnostic information based on the examined call stack and based on the point of failure within the module or sub-application;

(d) performing callback processing, wherein the notified callback [[s]] functions of the modules and sub-applications interpret the call stack's context supplied to the callback function, determine the contextual diagnostic data to be extracted and supplied to the error handler, and extract and supply the contextual diagnostic data;

(e) packaging the contextual diagnostic data supplied by the notified callback [[s]] functions of the modules and sub-applications; and

(f) using the packaged contextual diagnostic data for further analysis in order to troubleshoot the point of failure of the software program.

2. (ORIGINAL) The method of claim 1, wherein the registering step (a) comprises registering callbacks for the modules and sub-applications when an address of a procedure or function within the modules and sub-applications is on the call stack upon the failure of the program.

3. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the contextual diagnostic data is comprised of stack data, heap data, global data or external data.

4. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising storing the packaged contextual diagnostic data.

5. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising transferring the packaged context data to a server computer.

6. (PREVIOUSLY PRESENTED) The method of claim 5, further comprising storing the transferred, packaged contextual diagnostic data on the server computer.

7. (CURRENTLY AMENDED) An apparatus for providing contextual diagnostic data at a point of failure of a software program, comprising:

a computer; and

logic, performed by the computer, for:

- (a) registering one or more callback [[s]] functions for each of one or more modules and sub-applications; within the program;
- (b) examining a call stack for the program upon failure of the program;
- (c) notifying the registered callback [[s]] functions for the modules and sub-applications based on the examined call stack, wherein an error handler gives each module or sub-application that registered a callback function and is on the examined call stack an opportunity to include specific diagnostic information based on the examined call stack and based on the point of failure within the module or sub-application;
- (d) performing callback processing, wherein the notified callback [[s]] functions of the modules and sub-applications interpret the call stack's context supplied to the callback function, determine the contextual diagnostic data to be extracted and supplied to the error handler, and extract and supply the contextual diagnostic data;
- (e) packaging the contextual diagnostic data supplied by the notified callback [[s]] functions of the modules and sub-applications; and
- (f) using the packaged contextual diagnostic data for further analysis in order to troubleshoot the point of failure of the software program.

8. (ORIGINAL) The apparatus of claim 7, wherein the logic for registering (a) comprises logic for registering callbacks for the modules and sub-applications when an address of a procedure or function within the modules and sub-applications is on the call stack upon the failure of the program.

9. (PREVIOUSLY PRESENTED) The apparatus of claim 7, wherein the contextual diagnostic data is comprised of stack data, heap data, global data or external data.

10. (PREVIOUSLY PRESENTED) The apparatus of claim 7, further comprising logic for storing the packaged contextual diagnostic data.

11. (PREVIOUSLY PRESENTED) The apparatus of claim 7, further comprising logic for transferring the packaged contextual diagnostic data to a server computer.

12. (PREVIOUSLY PRESENTED) The apparatus of claim 11, further comprising logic for storing the transferred, packaged contextual diagnostic data on the server computer.

13. (CURRENTLY AMENDED) An article of manufacture comprising a program storage device embodying instructions that, when read and executed by a computer, cause the computer to perform a method for providing contextual diagnostic data at a point of failure of a software program, comprising:

(a) registering one or more callback [[s]] functions for each of one or more modules and sub-applications within the program;

(b) examining a call stack for the program upon failure of the program;

(c) notifying the registered callback [[s]] functions for the modules and sub-applications based on the examined call stack, wherein an error handler gives each module or sub-application that registered a callback function and is on the examined call stack an opportunity to include specific diagnostic information based on the examined call stack and based on the point of failure within the module or sub-application;

(d) performing callback processing, wherein the notified callback [[s]] functions of the modules and sub-applications interpret the call stack's context supplied to the callback function, determine the contextual diagnostic data to be extracted and supplied to the error handler, and extract and supply the contextual diagnostic data;

(e) packaging the contextual diagnostic data supplied by the notified callback [[s]] functions of the modules and sub-applications; and

(f) using the packaged contextual diagnostic data for further analysis in order to troubleshoot the point of failure of the software program.

14. (ORIGINAL) The article of claim 13, wherein the registering step (a) comprises registering callbacks for the modules and sub-applications when an address of a procedure or function within the modules and sub-applications is on the call stack upon the failure of the program.

15. (PREVIOUSLY PRESENTED) The article of claim 13, wherein the contextual diagnostic data is comprised of stack data, heap data, global data or external data.

16. (PREVIOUSLY PRESENTED) The article of claim 13, further comprising storing the packaged contextual diagnostic data.

17. (PREVIOUSLY PRESENTED) The article of claim 13, further comprising transferring the packaged contextual diagnostic data to a server computer.

18. (PREVIOUSLY PRESENTED) The article of claim 17, further comprising storing the transferred, packaged contextual diagnostic data on the server computer.